

R-E-M-A-R-K-S

Claims 1-22 remain pending in the present application. Claims 1, 2, 5, 7-8, 10, 12-13, 16, 18-19, 21 are hereby amended to clarify the claimed subject matter and to overcome claim rejections. No new subject matter is added by the present amendment

Amended claim 1 and 12 now recites "receiving at a shared medium controller, and from said plurality of client computers working on a same task, **serialized** transaction requests for at least one of reading and writing a data element on said shared storage medium." This subject matter is supported by Fig. 2, Fig. 3 and by at least paragraph [008], and [010] of the specification, wherein it is stated that "serialized" input transaction requests are to be treated by the system. Fig. 3 also shows the different arrival times of each transaction requests, and thus clearly indicates that no request can arrive at the exact same time; they are serialized in nature.

All other amendments clarify the claim language only and are fully supported by the specification.

Fig. 1 is amended to incorporate a Prior Art label. No new matter is being submitted in the present amendment.

Rejection of claims 1-22 under 35 U.S.C. 112

The Examiner deems claims 1-22 as being incomplete for omitting essential steps. In response, the Applicants submit amended claims 1 and 12, which now separate the steps of retrieving and executing all read transaction requests for said data element. The performance of the execution step ensures that all read transactions are completed before any write transaction request is executed.

The Applicants believe that claims 1 and 12 as presently amended overcome the rejection under 35 U.S.C. 112 and kindly request reconsideration of the rejection.

Concerning the rejection of claims 2 and 13, and their dependent claims 7 and 18, presently amended claims 2 and 13 rectify the error and clearly indicate that the "version state" is locked, and not the "data element". This amendment is supported by at least one of the drawings and paragraph [047] wherein, a "lease" refers to a "version state" as stated in the original claim language.

Claims 5, 8, 10, 16, 19 and 21 are amended to ensure the presence of proper antecedents.

Presently amended claim 12 clarifies the subject matter by adjusting the language such that active limitation steps are used as requested by the Examiner. Amended claim 12 also corrects the noted lack of proper antecedent.

Concerning the objection of Claim 16, the Applicant hereby amends this claim such that it is no longer identical to claim 5 by changing the referenced claim numeral. No new subject matter is added.

Rejection of claims 1, 6, 12, and 17 under 35 U.S.C. 102(b) in view of DeRoo (U.S. 6,182,196)

For anticipation under 35 U.S.C. § 102, the reference "must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present." (MPEP §706.02). "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Concerning the anticipation rejection of claim 1, the Examiner states that all the claimed subject matter of claim 1 is anticipated by DeRoo. Particularly, the Examiner refers to Figure 7 and column 10, line 44 to column 11, line 19 to indicate that DeRoo discloses "adding said transaction requests to an execution queue in order". In response, the Applicant respectfully submits that DeRoo's reference to "client operation requests" in the above-cited passage pertains to the arbitration of "memory access requests" and "collision" (see abstract, column 3, lines 56-59) of "client processes" (Fig. 2 and 3), which is significantly different from the subject matter of the invention at issue.

The description in the cited passage, column 10, line 44 to column 11, line 19, refers to all memory accesses, and hence does not distinguish between read and write requests. DeRoo does not describe executing read transaction requests in order until a write transaction request is retrieved in the queue as in claim 1. Claim 1 as presented herein clearly indicates an execution of requests which depends on the nature of the requests; i.e. read versus write requests, and not on the data element (or "memory block" as disclosed in DeRoo) that is being accessed or involved in the operation.

In addition, read requests as detailed in claim 1, are **always executed in parallel** for a data element. DeRoo teaches that multiple simultaneous requests for a same data element cannot be executed in parallel since they are accesses to a same memory block (column 10, line 44 to column 11, line 19 and Fig. 7). From the same passage of DeRoo, it is clear that the requests are processed in such a way that when "a cross check module 502 receives the client operation requests, it determines if two or more clients are contemporaneously attempting to access an identical memory block of memory via the client operation requests." If not, then "the cross check processes the client operation requests in parallel." And further in the same passage: if two client 110 and 292 are

"contemporaneously attempting to access an identical memory block of memory, the cross check module **arbitrarily** allocates the first client operation request to client 110 or 292." Claim 1 identifies that even when two clients are attempting to read a data element, the read requests are executed in parallel following a queue ordered by the arrival times of the requests. The method of presently amended claim 1 and 12 can never receive simultaneous requests since they are serialized and thus always have different arrival times, ~~shared-medium disclosed is accessed through a single channel (see Fig. 2) and claim 1 ("receiving over a single channel")~~.

The Applicant respectfully submits that DeRoo does not anticipate independent claims 1 and 12 because the prior art does not teach every aspect of the claimed invention either explicitly or impliedly. DeRoo does not either suggest the claimed invention or motivate a person skilled in the art to derive the subject matter of claims 1 and 12 and hence claims 1 and 12 are also considered non-obvious in light of DeRoo. Withdrawal of the rejection to claims 1 and 12 is respectively requested.

The foregoing arguments also apply in response to the rejections directed to Claims 6 and 17, which all depend on claims 1 and 12 respectively. The Applicant therefore submits that Claims 1, 6, 12 and 17 are novel and non-obvious.

Rejection of claims 2-5, 7-11, 13-16, and 18-22 under 35 U.S.C. 103 in view of DeRoo (U.S. 6,182,196)

Due to claim dependencies, and in light of the arguments submitted hereinabove, the Applicants believe that all further rejections directed to claims 2-5, 7-11, 13-16, and 18-22 under 35 U.S.C. §103 with respect to DeRoo become moot.

In view of the foregoing arguments, reconsideration of the rejections and objections of claims 1-22 is respectfully requested. The Applicant believes that claims 1-22 are allowable over the prior art, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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Enclosures: "Replacement Sheet" Figure 1.